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ABSTRACT

Psychological training programs developed and implemented for gymnasts of a wide range of age and varying abili y levels are examined. The programs utilized strategies based on cognitive-behavioral intervention. The approach contends that mental training plays a crucial role in maximizing performance for most gymnasts. The object of the training is to make athletes increasingly aware of interaction between their minds and bodies and to become skilled at self-management. Early emphasis is placed on increasing awareness, sensitivity, and recognition of anxiety, arousal, and tension in response to potentially stressful situations. Cognitive and somatic skills are taught, including thought stoppage, counter arguments, self-talk, imagery, relaxation, breath control, and concentration improvement techniques. A description is given of methods by which an indepth perspective may be obtained on how gymnasts manifest anxiety, and how they attempt to cope with it. A discussion is given on stress management and confidence development through relaxation training. (JD)

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COGNITIVE SOMATIC BEHAVIORAL INTERVENTIONS FOR MAXIMIZING GYMNASTIC PERFORMANCE

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Recently increased standards of performance and degrees of difficulty have evolved in competitive gymnastics. Likewise, the prestige and publicity accorded to successful performances has also increased. As a result, the levels of stress and anxiety with which competitors must effectively cope have also risen.

Currently, much interest is being directed to the study of the psychological strategies employed by athletes to mentally prepare and condition themselves for competition (Mahoney and Avener, 1977; Highlen and Bennett, 1979; McAuley, 1980; Rotella, Gansneder, Ojala, and Billings, 1980). A number of cognitive-behavior rehearsal packages have been designed specifically for helping athletes perform up to their potential (Nideffer and Decker, 1970; Suinn, 1972, a,b,1977; Gravel, Lemieux, and Landoneur, 1980; McAuley and Rotella, 1980).

This paper is based on psychological training programs developed and implemented with gymnasts ranging in age from 10 to 24 years of age representing the California State University, Fullerton Gymnastic Team and the Richmond Olympiad Gymnastic Club, Richmond, Virginia. The training programs are specifically designed for gymnasts of varying ability levels.

The program was designed and implemented at the request of and in cooperation with coaches who felt that excessive anxiety and tension were interfering with performance. The program presented utilizes strategies based on cognitive - behavioral intervention. These strategies are clearly useful to athletes in other sports but will need to be modified to meet the needs

of the particular sport.

Our approach in working with student - athletes is rooted in a humanistic phenomenological orientation. Thus, the individual athlete's direct movement experience is the focal point in enhancing performance. We work from the gymnast's experiential base to make needed changes in their gymnastic experience. The importance of individualizing the program to meet each gymnast's own experiential base can not be overemphasized. It is, however, impossible to completely do so within the constraints of this paper.

In our approach we also emphasize that within each gymnast there is an inner athlete (Gallwey, 1974) or an ultimate gymnast (Leonard, 1975) that needs to be discovered and allowed to grow. The fears, anxieties, and doubts that cloud this inner gymnast must be removed so that optimal performance can move from within.

Another key principle to our approach is that gymnasts have limited control of their external environment, but total control of their response to it. This implies two points: 1) gymnasts should strive to anticipate and prepare as well as possible in order to gain as much control as possible of their external world, and 2) gymnasts can change their response to the pressure of performance.

Through effective anticipation and preparation athletes can learn to prevent a stress response from occuring. For example, by anticipating an occasional fall off a beam during a performance and preparing an effective response it is possible

to prevent a stress response from ever occuring. But all situations cannot be anticipated and prepared for in advance. In such situations athletes must have stress management skills which will allow them to totally change or control their response to these situations. For example, a gymnast initially responds to a situation with increased shoulder tension which could hinder or destroy performance. But through skill in stress management the athlete is able to recognize and loosen the tension to an appropriate level. This later point is basic and so essential to coping with stress in sport. There will be times when all athletes will get tense and anxious. Even the very best experience excessive tension and anxiety. So it is how well gymnasts are able to cope with the anxiety and control the resulting tension level that is most crucial to maximal performance.

All of the techniques addressed in this paper compliment the gymnasts rigorous and disciplined training programs. It should not be assumed that they are intended to or could replace the physical training. For far too long it has been assumed that when gymnasts fail to perform up to their ability that more and more repetition is the answer. The approach detailed here argues that mental training plays a crucial role in maximizing performance for most gymnasts. Indeed it is the quality of practice rather than quantity or repetition alone that is crucial to optimal performance. In order to improve quality athletes must become increasingly aware of the impact of their minds and bodies and be skilled at self-management.

The approach detailed will utilize cognitive and somatic approaches to behavioral self-control. Gymnasts will learn to listen to and respond to the subtle messages of their bodies and minds in an appropriate manner. Early emphasis will be placed on increasing awareness, sensitivity, and recognition of anxiety, arousal, tension, in response to potentially stressful situations. Gymnasts will be helped to clearly understand the role of self-perception in defining situations as stressful or non-stressful. Gymnasts will then learn a variety of cognitive and somatic skills including cognitive restructuring (thought stoppage, counter arguments, self-talk, imagery, etc.), relaxation training, conscious stretching, breath control, and concentration improvement techniques. These strategies have been found to be most suitable to the closed nature of gymnastic performance. (Ravizza, 1980)

The program presented consists of five specific but interrelated phases. The first phase consisted of interviewing the gymnasts to ascertain their present methods of coping. The second phase entailed providing the gymnasts with an overview of the total approach to be utilized and the rationale for it. This step is crucial to the ultimate goal of self-control. It is time consuming but time well spent in the early phase of the program. The third phase was to determine each gymnast's anxiety level and to discover the way in which anxiety is typically manifested. In this phase gymnasts attempted to understand their own ideal level of arousal for maximal

performance in different events. Gymnasts were made aware of extreme situations where they might be too aroused and anxious as well as situations where they might be so confident they could be bored and underaroused. The fourth phase was to teach the gymnasts various techniques for coping with anxiety at differing situations and at various stages of performance: pre-meet, warm-up, pre-event, during, and following performance. The fifth and final phase was designed to facilitate transfer of the skills taught to life experiences outside of the sport world. The intent was to provide strategies for coping effectively with stress and anxiety throughout one's life.

THE INITIAL INTERVIEW

Some of the gymnasts had already had eight years of intense participation in gymnastics. Many had previously competed at the international level. This firm foundation provided a solid foundation from which to work. Others had very little experience. In such cases the solid experiential base was missing.

A first task was to interview each gymnast to help grasp an understanding of their experience, to attempt to discover methods already being utilized to cope with stress, and to establish a trusting and open relationship with each athlete. Interview strategies varied from highly formalized to quite informal depending upon characteristics of each gymnast. In general, an interview following the format presented below was utilized:

TABLE I

INITIAL INTERVIEW - GYMNASTICS

A. ESTABLISH RAPPORT - MAKE ATHLETE FEEL COMFORTABLE

B. EXPERIENTIAL BASE

1. Athlete describes their own experiential base

How long have you been competing?
What have been your experiences?
Success?
Failure?
Mixed?
How do you explain your consistent or inconsistent results?
Are there situations or events that you tend to perform well or poorly?
Do you feel confident that you are mentally and physically preparing yourself as well as possible?
How does your body usually feel when you perform well?
How does your body usually feel when you perform poorly?
Have you ever thought much about the role that your thoughts, emotions, and feelings play in your performance?

2. Athlete describes past problems

a) When you have performance problems what do you think is interferring with your ability to perform maximally? (Probe and help athlete accurately analyze the problem.)
Do you really have a problem?
Is the problem imagined?
Do you really have the physical skills down?
Do you execute perfectly in practice and then fall apart in competition?
All competitions or just real important meets?

b) Seriousness of the problem
How serious is the problem as far as you are concerned?
Does it only surface in certain situations or is it quite general?
Do you have any idea as to the cause of the problem?
Are there certain people that cause you to get up tight? (Coaches, teammates, parents, peers, girlfriend, boyfriend)

Do you only have problems when you compete away from home and your own equipment and surroundings?
Are there certain competitors that upset and distract you?
Do you ever fear getting injured? If so, does it distract you while competing?

3. Athlete describes past peak performances

a) When you perform real well do you have any explanation of why?
(Probe and help athlete understand self)
Describe your feelings and thoughts in these situations.
How are they different from when you perform real poorly?
What were you thinking and feeling prior to, during, and following these peak experiences?
How does it differ from your thoughts and feelings when you perform poorly?
Are there certain gymnasiums, kinds of equipment, or meets that you tend to consistently perform well?
Do you have any idea as to why you perform so well in certain situations?
Are there certain people that help you to concentrate and perform well?
Are there particular competitors that you tend to compete real well against?

4. Evaluation of antecedent causes

When was the first time you can remember performing really well?
Can you recall anything about that day?
When was the first time that you can recall feeling nervous and uptight?
Can you think of anything that may have caused you to feel this way?
What do you think is the best way to prepare for competition?

5. Comparison of problem and peak performances

What do you think are the differences between problem and peak performances?
Is your explanation logical?
Is it consistent with your experiences?
Try to recall the last time you performed poorly.
What were you saying or thinking to yourself prior to, during, and following competition?

Try to recall how your body felt in these situations. Compare these to your thoughts and feelings prior to, during, and following a great performance.
Do you notice anything here?
Do you realize that you <u>can</u> control your thoughts and feelings?
Do you realize that your thoughts and feelings can and do either help you or hinder your performance?
(If possible get a film of a great performance and a poor performance and while viewing it ask the gymnast to verbalize out-loud their thoughts and feelings during each and note the differences.)
Why do you think that you have failed to control your thoughts in the past?
Are you beginning to realize their importance to your performance?

6. Intervention

Today was an important first step in <u>helping yourself</u>.
Are <u>you</u> ready to work to improve yourself?
What do <u>you</u> think might be done to improve yourself?
Are you ready to take self-responsibility for your performances?
I want you to talk to your coach about what we did today and see if he has any suggestions.
Next week we will begin to outline a program to help you.
Is there anything else I should find out about you before we get started?
I feel we will really make some progress. Your openness and honesty are very important. It will help you know yourself better and it will help me help you help yourself better.

The interview is an essential part of the stress management program. They provided us with pertinent information to individualizing our program and gave an early personal experience with each gymnast. The interview gives the therapist opportunity to fully recognize the importance of athlete input and assured each gymnast that their input would be highly valued. These factors were crucial to the establishment of a trusting and effective relationship. This trusting relationship is essential if one is to explore the experiential aspects of the gymnast's experience.

In general it was quite obvious that our gymnasts had no prior formal training in stress management. But most had been given instructions by a coach or friend to "relax" or "concentrate".

After the interviews, a team meeting was held to discuss the program that we would use in working with them. Initially, a summary of the research on anxiety and coping and its relationship to gymnastic performance was presented. A key point was to emphasize that anxiety need not be viewed as something to overcome, but that it could function as an ally to aid one in achieving peak-performance. Another essential point was to explain that each person's anxiety level is different. Each athlete was encouraged to increase their awareness and sensitivity to determine their own individual level. Thus, the athletes were informed that they would have to know themselves as gymnasts and that they would have to take the responsibility in coping. This session also provided the

gymnasts with a personal understanding of anxiety. During the ensuing group discussion they shared various ways in which they each had coped previously. This discussion provided them with new options to consider and aided in creating team unity at a heightened level. All gymnasts now had an overview of our program and had shared their own coping strategies.

DETERMINING INDIVIDUAL ANXIETY LEVELS

Our initial task in the third phase of our program was to determine each athlete's anxiety level and the way that they manifested their anxiety. This was accomplished by first administering objective tests to measure anxiety. A variety of relevant measures including the Sport Competition Anxiety Test, Spielberger's Anxiety Test and Nideffer's Attentional Test were administered and scored by a sport psychologist. The second strategy was to talk with the coach to get his perception of how each gymnast manifested anxiety, i.e., nail biting, sleeplessness, upset, yawning, edginess, stomach, tension in shoulders, giddiness, etc. It was interesting to observe that the coach's observations were similar to what the objective measures presented. A third technique was to obtain the gymnasts perspective of the way they experienced anxiety. The final method was our observation of the way they coped in simulated meet situations, and their early meets of the season.

These four methods provided us with an indepth perspective of the way that each gymnast manifested anxiety and attempted to cope. It served as a base from which we could work.

RECOGNITION AND AWARENESS OF ANXIETY

Since anxiety feeds on itself or begins gradually and if not brought under control will continue to intensify to the point where it inhibits performance, the gymnast must recognize it and intervene or stop the learned response to stress. This is also important because we have found that anxiety can often be contagious. It can spread from the coach to athletes or from one athlete to the next.

Each individual experiences the anxiety in a unique way. It may be manifested physically: tense jaw, shoulders, neck or muscle tension, shallow breathing, sweaty palms. Since the gymnasts have a highly developed kinesthetic awareness of their bodies they can learn to recognize the physical level readily if encouraged to be conscious of it. The tension can also be observed at the behavioral level: laughing, tiredness, nail biting, being hyper. Video taping is a tool that can be used to enhance the recognition on this level. On the cognitive level one must talk with the athletes to determine the type of imagery and self-talk that occurs: self-doubt, negativity, scattered thoughts, positive, self-enhancing, self-defeating.

Each of the gymnasts were asked to observe their anxiety manifestations and report their experiences after each meet. Of course, as the season progressed the gymnasts needed to focus their attention on the performance and could not give undo emphasis to tension recognition.

ENHANCING AWARENESS OF STRESS

Awareness is the first step to changing any behavior. In

our program we have incorporated two methods to aid in this recognition: first, developing a centered present focus and second, using the body as a reference point to determine the level of tension. The gymnasts must have their attention focused on what they are experiencing at the present moment. Each gymnast was encouraged to observe what was being experienced - not judge it but just observe it. This present orientation is essential because much anxiety develops from what occurred in the past (poor previous event) or expectations of the future (a difficult event ahead). When focused in the present time orientation gymnasts can be aware and in control of their anxiety level. This present orientation is also where the gymnast's consciousness needs to remain during performance because breaks often occur due to anticipation of future moves or being relieved at completing previous moves (getting too far ahead of oneself or behind). Bonnie Jordan, a gymnast, stated:

> "It is just me and the routine; there is a complete silence. I forget time and just totally get into it... It is strange it is just me and the beam. I am so into it that I do not notice anything else." (Jordan, 1979)

By having the gymnasts use simple breathing techniques they can pull their consciousness to the present, then observe how they are manifesting tension and then determine if it is at their appropriate level. If their anxiety level is too low they can raise it or if too high lower it.

By having the gymnasts develop this present focus it aided them in becoming sensitive to subtle messages of the body.

All gymnasts worked on developing a feeling of being centered in the body and this provided a reference point from which each athlete could work. Early in training time was spent developing this sensitivity by working with general relaxation and then maintaining that relaxed consciousness in a standing position and eventually in a walking position. One technique utilized at this point in the program was to use a dark and quiet room and have the gymnasts slowly walk, feeling the subtle aspects of this usual non-attentive activity. This was done for ten minutes with them slowly becoming aware of the finer aspects of their awareness in walking. They learned to move from this centered perspective and thus by developing this relaxed state of awareness it can serve as a reference point for reaching the desired anxiety level. By the time they got to the nationals or major competitions this sensitivity to an inner awareness provided a centered perspective where they could confront the anxiety of important competition.

THE IMPORTANCE OF GENERAL RELAXATION

Coaches can tell when an athlete is too tight or not focused properly and often all they can say is "relax" or "concentrate". For this reason much time was given to teaching all gymnasts how to develop specific skills to relax and concentrate. Early in the season they received training in progressive relaxation, autogenics, and imagery for the purpose of gaining self-control. Once they got control in a quiet environment distractions were added in graduated fashion so they could refine their skills. Our premise was that an athlete

needs to know how to relax in general before they can expect to relax on a balance beam in national level competition.

The general relaxation serves three major functions: it provides a reference point for managing anxiety, prepares one for enhanced imagery and visualization procedures, and it aids in giving the person the overall benefits of relaxation (physiological and psychological nurturing). We believe that the final rationale alone is worth the time spent because of the rigorous training schedules in which the gymnasts were engaged.

INTERVENTION STRATEGIES

Various intervention strategies were presented early in the season so that each gymnast could determine which methods function best for them. The information gained earlier relevant to anxiety and tension manifestation was utilized at this point in our program. For example, a gymnast that manifested tension in the shoulders might benefit more from stretching or relaxation training than from imagery or cognitive restructuring. But emphasis was always placed on the fact that all of the techniques whether cognitive, somatic, or behavior have a simultaneous effect on the mind and body. The essential point was to determine which avenue worked best for each gymnast's particular needs.

ANTICIPATION AND PREPARATION

An important psychological strategy utilized in our program employed a combination of cognitive restructuring and stress innoculation (Meichenbaum 1975; Rotella and Whorley, 1980). The intent of this part of the program was to anticipate

emotionally distracting situations and prepare gymnasts to respond with control and concentration. Input received from gymnasts have experience in differing competitive situations was crucial to the success of this part of the program.

The first step was to develop a list of situations that could occur prior to, during, and following gymnastic competition which could cause an emotional response. Typically this list was comprised of situations that really did cause particular gymnasts problems in the past (see FIGURE 2)

Once this list is drawn up the gymnasts practice utilizing the strategies of thought stoppage and self-statement modification. Self-statements are determinants of emotional responses and they effect the efficiency of behavior in performance situations (Ellis, 1962). Indeed, Meichenbaum (1975) has postulated that behaviors are determined and influenced by what people say or think to themselves prior to, during, and following an event.

Athletes were asked to imagine themselves in the anticipated situations, and feel themselves thinking and feeling an inappropriate emotional response. They were then taught to repeat the word "STOP" or to take a "breath" whenever they became aware that they were thinking in a self-defeating manner or feeling an emotional response. They were then taught to prepare a positive self-enhancing statement that they could repeat to themselves if they ever found themselves in the anticipated situation (McAuley and Rotella, 1981).

FIGURE 2

ANTICIPATION OF POTENTIALLY

EMOTION AROUSING EVENTS

PRIOR TO COMPETITIVE PERFORMANCE

Having to perform worst event first.
Competitor just before you just gives the best performance of career.
Teammate just prior to you performs poorly.
Find out the judges are the same ones that underscored you last time you competed.
In the locker room you discover you brought the wrong uniform.
On the morning of competition your alarm fails to go off and you have five minutes to get to your ride.
Today is your last chance to quality for states or nationals.
Today my parents will see me compete for the first time in 3 years.
I will be trying a new move for the first time in competition today. I blew 2 out of 4 tries yesterday in practice.
Just before competing a coach or teammate reminds me I'm long overdue.

DURING COMPETITIVE PERFORMANCE

I just blew my opening move.
I can feel my leotards riding up and feeling uncomfortable.
Falling off the balance beam or bars in the middle of my routine.
Getting real excited about a great start.
Dwelling on a difficult move at the end of my routine.
Thinking about how embarrassed I am about my mediocre performance.
I hear the crowd booing someone else's scores while I'm performing.
Worrying that my hands are getting sweaty and slippery and I'm sure to slip off bars.

FOLLOWING COMPETITIVE PERFORMANCE

Today is not going to be my day. I totally blew my first event. I'll probably blow them all.
I can't believe it - I just got beat by someone who has never beaten me.
The judges were terrible. They favored the performers with reputations.
Gosh, how can I face my parents. They have spent so much money trying to help me.

FIGURE 3

COGNITIVE RESTRUCTURING AND

THOUGH" STOPPAGE

PRIOR TO COMPETITION	DURING COMPETITION	FOLLOWING COMPETITION
"My beam routine isn't as good as my teammates. I don't have any conficence. I know I'll embarrass myself."	"Gosh, I feel awful. I bet I look terrible. I bet everyone is laughing at me."	"That felt O.K. but I'm just not very happy."
"STOP" "RELAX" "THINK RATIONALLY"	"STOP" "RELAX" "TAKE YOUR TIME" "CONCENTRATE" "BREATH"	"STOP" "RELAX" "THINK RATIONALLY"
"This is my favorite event. I have done my routine perfectly thousands of times. Stay calm, and visually rehearse your routine perfectly in your head. I am prepared. I have nothing to fear. I have a great routine. I will do my best and be happy. Take your time and concentrate on what you're doing."	"O.K., great mount. Breathe slowly and now focus attention on your next move and let it flow. Concentrate on each trick as it comes."	"I did great. Look at your scores. I performed well and I scored well. I slightly missed a couple of moves. But I don't have them down in practice yet either. I must practice more. When I get them down I'll be able to compete with anyone. I'm getting there. I feel proud."

MORE SOMATIC-ORIENTED STRATEGIES

Several more somatic-oriented strategies were utilized in our program. Abdominal breathing was one technique all the gymnasts were trained in because it is so basic and is the body's natural tranquilizer. The breathing techniques were learned in conjunction with relaxation early in the season. The gymnasts were taught to associate the abdominal breathing with relaxation to help program the behavior into the neurophysiology of each gymnast. Conscious stretching is another way to release tension. From the beginning of the season it was emphasized that when stretching one is doing more than just stretching muscles, but releasing tension as well. Massage also compliments this physical release. Oftentimes athletic trainers can assist with this aspect of the program. The advantage of these three methods are that they were basic and easy for most gymnasts to execute. These strategies were not used in isolation. They were combined with a variety of other coping strategies.

CREATING A RELATIONSHIP WITH THE APPARATUS

Another means used to help the gymnasts manage their anxiety levels was to take more of a philosophical orientation to their performance. The gymnasts were encouraged to move in the direction of an "I-thou" type of relationship with the event. The I-thou relationship is a concept that was developed by Martin Buber to describe those meaningful moments in a person's life where they are in union with another person: these moments have a presentness, intensity, and total involvement. (Buber, 1965)

Gymnasts can move in the direction of this I-thou perspective by familiarizing themselves with the apparatus; touching it, smelling it, feeling it, almost as if it were viewed as a friend. Nancy Jones, a gymnast stated that:

> "I was surprised that previously I never really felt the soft quality of the balance beam. In my routine I begin with a mount where my hands are in contact with the beam. Once I touch that beam it is like the final concentration switch is turned on." (Jones, 1980)

No matter where one performs the beam is relatively the same and this familiarity can be used as a tool to control excessive anxiety and arousal. Dick Wolfe, a gymnastics coach explained: "The floor exercise area is a 42 foot square no matter where you are competing and it is your area to command." (Wolfe, 1980) He at times has told his gymnasts to bring in an apple for the pommel horse. The point is that the athlete cannot fight the routine but must merge into it.

This I-thou relationship is stimulated in the pre-meet preparation. For example, at nationals last year the team arrived three days before the meet to become familiar with the environment. We fostered this by having the gymnasts sit in the stands and look at the apparatus and then view it from different locations and finally move to the apparatus and walk around it and experience it as more than just an object. The emphasis was to have the gymnast experience what was different about it; texture, smell, etc. And then look at the external factors; television cameras, color of the walls, ceiling, etc. This was all done consciously, not haphazardly. The purpose being that when the intensity of finals enters they have a

friend: they are in a safe place. Some team members reported that this appeared to help in managing anxiety. The technique apparently facilitated habituation to the environment. For those who did not, they used methods that were appropriate to their needs. It must be emphasized that within our program the gymnasts were presented with many methods to manage their anxiety, but it was their decision to determine which strategies work for them. This flexibility is essential.

ACTUAL NATIONAL LEVEL COMPETITION

A variety of specific methods were incorporated into the program to help the gymnasts cope with the stress of national competition. By way of example we will focus on the balance beam (a women's event) in particular. This will be discussed in terms of managing anxiety in the following stages: pre-meet (three hours prior to competition), warm-up, pre-event, and the actual performance. An essential point is that the coach must take care of all coaching responsibilities, such as making certain transportation is arranged, pre-meet eating plans are taken care of, and many other details. These technical factors when not executed properly can create unnecessary stress.

PRE-MEET

Three hours before the meet those gymnasts that tend to be higher in anxiety participate in group relaxation and imagery session. The gymnast has the final choice in determining whether or not this is appropriate for their needs. To attempt to force a person to relax is impossible and potentially even stress provoking. In the early meets they were, however, encouraged

to at least try it. Often this session was found to aid the gymnasts by beginning the mental preparation that is needed in competition. It gives the gymnast a conscious method to make the adjustment from the days events and the actual gymnastic meet. The imagery techniques (mastery rehearsal) aided the gymnasts in getting their bodies ready for the warm up period. Susan Archer, a gymnast, explained her experience with the pre-meet session:

> "For me I was able to get into the state I needed to compete. I could create that feeling that I needed to perform. The imagery helped my performance because I felt like I had already done the routine once." (Archer, 1979)

WARM-UP

The warm-up period was used as an opportunity to determine the state of their total being in relation to performance; for example, which muscles were excessively tight. Stretching was used to bring the physical body and thought process to the centered state with which they were familiar. Achieving this centered state was a gradual process and each gymnast with time learned how to attain it prior to competition. Susan Archer explained this procedure:

> "I find out where I am sore, (there is a difference between muscle soreness and tightness from tension). I determine how flexible I am that day and stretch out accordingly. I then go through my routine to feel where I am tight and loose so that I can get my body the way I want it." (Archer, 1979)

The warm up also gives the gymnasts a final opportunity to familiarize themselves with the apparatus and to adjust to the crowd.

PRE-BALANCE BEAM

The gymnasts do what is needed to fine tune their concentration. It might be imagining routines, talking one's self through the routines, executing actual physical movements on the floor, breathing techniques, prayer or whatever methods they use. As mentioned earlier, these choices had been determined earlier in the season. For example, one gymnast felt she needed to go through many routines to establish the confidence she needed. So she would see herself going through six routines. Others attained the same mental state by going through one routine.

Immediately before the beam routine each gymnast narrowed their focus of attention, this was fostered by having a specific point on the apparatus on which to focus. For example, a mark on the beam is selected to direct one's attention. This is where the gymnast and apparatus move in the direction of the I-thou relationship. Bonnie Jordan, a gymnast, explained:

> "Right before I start, I totally block out various distractions. It's as if external things are melting away and then a silence surrounds me." (Jordan, 1979)

Not every gymnast has this type of ability to concentrate but we think the gymnast of the future will need to develop this type of concentration skill and with practice are capable of developing it.

ACTUAL PERFORMANCE OF BEAM ROUTINE

The first task was to fine tune the I-thou relationship and it was at this point that the ambiance was created and the "ultimate gymnast" begins to emerge. The routine was at the

automatic stage, the gymnasts had done their routine thousands of times and now they need to do what they had done in practice. Once the routine begins, the gymnast focused on one part at a time. As mentioned earlier, this present awareness was essential because it was in the present time orientation that they make the subtle compensations in their movements to make it appear perfect. At various points in the routine there are internal focus points they can concentrate on to keep centered. For example, when a woman gymnast is doing a "flip-flop" on the beam fear is a definite factor. Right before the trick a concentration point that has been established previously was focused upon, for example, pulling the thighs together. This point was usually associated with a mechanical aspect of the movement. The key factor was to make the point as specific as possible, not just a tightening of the thighs but a specific spot where she will experience the tightening of the thighs. The assumption was that if she was focused on that spot she could not be conscious of the fear as well. The specific focal point will vary among gymnasts.

Some gymnasts used sounds to focus their attention. Bonnie Jordan revealed:

> "I use key words like "Jam Go, Jam Go"; I have all these words that focus me in. I will just think of the first trick and then it follows. I think of my routine as a whole and at key points I think of a sound that goes with each trick." (Jordan, 1979)

Another gymnast focused on her breathing as she went through her event. Whatever worked best for that person was implemented. But, the strategy chosen was established early in the season so

that they could be conscious of it as they worked their routines throughout the season. These techniques were developed by the coach and the applied sport psychologist working with the gymnasts in practice to determine where they placed their consciousness during the routine. The focal points were determined, through communication and trial and error. They were not left to chance.

Thus the gymnasts were taught specific techniques to concentrate, relax, and intervene on distractions at various stages of their meet preparation and the actual performance. The concepts of stress management can be presented to all the team members at the same time, but the applied sport psychologist must work with each gymnast to determine which strategies work best for each individual.

THE BENEFIT OF STRESS-MANAGEMENT SKILLS IN LATER LIFE

Throughout the program time was given to explaining how the skills taught were not just limited to gymnastics, but could be used in all aspects of life where one needs to cope with stress, for example, test taking, job interviews, childbirth, injuries, emotional trauma. Thus the gymnast leaves the program knowing not only gymnastic movements but also coping skills that can be used throughout life.

A final point to summarize this paper is that many of the techniques and theories we have incorporated in our program were things many of the gymnasts already did. What we did was to put them into a systematic framework where they would be understood as a whole, and to have the gymnasts bring a

consciousness to them so that they could be further refined to meet each of their specific needs.

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